

Voici les résultats que nous avons obtenus :

	h m s	
Premier contact extérieur	2 49 31.0	temps moyen de Rome.
„ intérieur	3 9 54.4	

L'instant du contact intérieur passé, lorsque le disque obscure de Vénus s'était déjà détaché du contour solaire, on vit assez bien encore uni à ce dernier au moyen de la *goutte noire*.

Selon nos déterminations, ce ligament se détacha complètement à 3^h 10^m 37^s.8.

Je fus attentif à observer si, après le contact extérieur, on distinguait autour du disque de la planète l'auréole de lumière, indice de l'atmosphère de Vénus, éclairée par le soleil ; mais je ne pus rien découvrir, pas même sur la portion du contour plus rapprochée du soleil, l'air étant toujours voilé et quelque peu agité.

Le disque de Vénus n'apparut entièrement noir ; il avait une teinte entre le rouge faible et le jaune sombre, le contour oscillant, à cause de la trop grande quantité de vapeur, dont l'influence allait toujours en augmentant à mesure que le soleil s'approchait de l'horizon.

C'est pour cela que les déterminations du diamètre de la planète (67''.12), que nous avons prises, ne sont pas trop sûres.

De l'Observatoire de Moncalieri :

1882, 8 Décembre.

Observation of the Transit of Venus 1882, December 6.

By the Rev. R. P. Davies.

As so very many observers in England were prevented from seeing anything of the Transit in consequence of an overcast sky, and others missed the contacts through cloud, I venture to send the following, having been exceptionally well favoured. From two or three minutes before external to some considerable time after internal contact there was nothing to mar the view. No attempt was made to note the time of external contact, the image of the Sun being thrown upon a screen in order that a party of friends might see the advance of the planet upon the disc at the same time. After the lapse of about twelve or fifteen minutes, a first surface reflecting prism, negative eyepiece, and neutral-tint glass shade were affixed, and I was left in the Observatory alone with only an attendant to watch and count the clock. There were thus about five or six minutes to follow the planet to internal contact. The attention was especially arrested by the aureole with its delicate tint. As the time of internal contact approached there was a phase at which it seemed well to mark the *second*, as it might turn out to be that which

Jan. 1883. *Rev. S. J. Johnson, Observation of Transit of Venus.* 75

answered best to the requirements of the "Instructions," p. 3, under "At Ingress." Nevertheless I felt satisfied that it was not contact, and that the appearance was still partly due to the light refracted through the planet's atmosphere. Nine seconds afterwards there was an unmistakable junction of the cusps of the Sun's surface; or, as I find it in my notes, written on the day and not touched since, "strip of sunlight unmistakable." This was at local sidereal time $19^h 16^m 4^s$, which when converted into G.M.T. (the longitude being $7^m 6^s.2$ W.) gives $2^h 22^m 6^s.32$.

There was but a very little distortion of the planet's form, and very little of the black drop; a striking contrast with that which baffled me when observing the egress of *Mercury* in the transit of November 1868. After the time noted, and probably after returning from the clock, I observed a faint fine line, "like a cobweb for fineness," connecting the planet with the limb of the Sun, the planet being then well on the disc. I regret to say that the moment when this disappeared was not noted.

The telescope is equatorially mounted and driven by a clock: its aperture, 4 inches; the power used, 60. The latitude and longitude of my Observatory are $51^{\circ} 44' 40''$ N., $1^{\circ} 46' 32''$ W.

*Hatherop Rectory, Fairford,
Gloucestershire:*
1883, Jan. 9.

*Observation of the Transit of Venus 1882, December 6, made at
Marseilles. By the Rev. S. J. Johnson.*

I observed the Transit from an upper window in the Hôtel Louvre et de la Paix in the city of Marseilles, having obtained time from the Observatory. The only instrument at my disposal was a $2\frac{1}{4}$ -inch telescope by Cooke. At the time of internal contact the Sun was visible through light clouds. No higher power than 70 could be employed, and no dark glass was necessary. At $2^h 39^m 47^s$ (local time) the limbs seemed in contact, but actual sunlight did not appear round the planet until $2^h 42^m 36^s$ (local time), somewhat suddenly. This would probably be true internal contact. At $2^h 46^m$ the Sun shone out brighter, and a power of 150 showed *Venus* well defined, and without the least trace of any ring of light. Through a darkened glass the planet was distinctly visible to the naked eye (and was so seen by numbers of persons at Bridport). After $3^h 18^m$ the planet began to boil, and after $3^h 22^m$ the clouds thickened.

Melplash Vicarage, Bridport:
1883, Jan. 8.